

6105.0 - Australian Labour Market Statistics, July 2013

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About this Release

This product contains annual supplementary measures of labour underutilisation and employment type, as well as analyses of contemporary labour market issues and information about the latest developments in the Australian Bureau of Statistics (ABS) labour statistics program.

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WHAT'S NEW?

Welcome to the latest issue of Australian Labour Market Statistics (cat. no. 6105.0), a product which helps you stay informed about key labour market measures and the latest developments in the Australian Bureau of Statistics (ABS) labour statistics program.

WHAT'S IN THIS ISSUE?

This issue highlights news from the ABS labour statistics program, including:

- Transition to online self-completion of the Labour Force Survey
- New Labour Force Survey sample design
- Rebenchmarking of labour force estimates
- New labour market microdata available
- Review of labour business survey collections
- Release of 2013 issue of Labour Statistics: Concepts, Sources and Methods
- Changes to Labour Topics @ a Glance pages.

See the Labour Statistics News page for more details on these developments.

Australian Labour Market Statistics (cat. no. 6105.0) includes three datacubes which provide supplementary information on labour force underutilisation (volume and extended measures) and on employment type. These datacubes have been updated with this issue. Estimates for the volume and extended measures of labour force underutilisation for the period 2008 to 2011 have been revised to incorporate the

latest available benchmarks for the labour force survey.

This issue of Australian Labour Market Statistics includes three feature articles:

- Extended Labour Force underutilisation rate highlights the the extended labour force underutilisation rate that is published in this issue and analyses the data and some interesting trends.
- Employment measures provides a comparison of a number of alternative measures of employment and provides an explanation of their intended uses, as well as their limitations.
- A comparison of the Census and the Labour Force Survey explores the methodological differences which underline the collections, and explains why estimates from the LFS and the Census of Population and Housing are different.

Updates on labour market statistical developments, analytical articles and future news is available through the recently revised Labour Topics @ a Glance page.

FEEDBACK AND COMMENTS

If you have any questions about the labour statistics program, you can contact us on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

The Find out more page contains further information and contact details.

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Labour Statistics News

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LABOUR STATISTICS NEWS

TRANSITION TO ONLINE SELF-COMPLETION OF THE LABOUR FORCE SURVEY

The ABS is currently transitioning to online collection of the Labour Force Survey (LFS). A trial of online electronic self-collection from one rotation group (i.e. one-eighth of the survey sample) has been undertaken since December 2012, and the expansion of the offer of online collection commenced in May 2013. Online collection involves respondents being offered the option of self completing the survey on-line in place of a face-to-face or telephone interview. Interviewer collection (both face-to-face and via telephone) continues to be available for those respondents where online collection is inappropriate for operational, technological or personal reasons.

The expansion of the offer of online self-completion in the LFS is coinciding with the roll-out of the new Labour Force Survey sample, which is being introduced over four months - May 2013 to August 2013. Two rotation groups (i.e. one-quarter of the survey sample) are being introduced each month in order to minimise any impact on the key estimates of implementing the new sample. To enable comparisons of those offered the survey online and those who are not, online self-completion is initially being offered to 50% of each incoming rotation group.

ABS will use information collected in the LFS over the transition period to gain an understanding of any potential impacts on the key labour force estimates resulting from the introduction of online self-completion. Subject to the findings of these analyses, the ABS intends to progressively increase the offer to 100% of each incoming rotation group from September 2013. In the long term, it is proposed that online self-completion will become the primary form of collecting LFS data.

More information is available in the April 2013 issue of Labour Force Australia (6202.0): Transition to online collection of the Labour Force Survey.

NEW LABOUR FORCE SURVEY SAMPLE DESIGN

Every five years the ABS reviews the LFS sample design to ensure that the sample continues to accurately represent the Australian population. The new Labour Force Survey sample, using information collected in the 2011 Census of Population and Housing, is currently being phased in. The introduction of the new sample commenced in May 2013, with two rotation groups (i.e. one-quarter of the survey sample) being introduced each month in order to minimise any impact on the key estimates of implementing the new sample. The new sample design includes the separation of the samples for the Monthly Population Survey (including the Labour Force Survey) and for Special Supplementary Surveys, and uses the Australian Statistical Geography Standard (ASGS) for sample selection and output.

For further information see Information Paper: Labour Force Survey Sample Design, May 2013 (cat. no. 6269.0), which was released on 30 May 2013

REBENCHMARKING OF LABOUR FORCE ESTIMATES

To ensure that labour force series maintain coherence with the latest population estimates into the future, the ABS has moved to a process of regular revisions of the LFS population benchmarks. Such revisions were implemented into the LFS in the November 2012 and April 2013 issues, and relate to estimates for the period July 2008 to October 2012 and January 2011 to March 2013, respectively.

The next benchmark revision will be released on 7 November 2013 in the October issue of Labour Force, Australia (cat. no. 6202.0) revising estimates from July 2011 to September 2013. In early 2014, the LFS population benchmarks will be revised to take account of the 2011 Census based ERP. Following this, the ABS will revise the LFS population benchmarks on a quarterly basis.

NEW LABOUR MARKET MICRODATA AVAILABLE

The ABS recently released several microdata products from the Labour Statistics Program.

The 2010–11 Barriers and Incentives to Labour Force Participation and Retirement and Retirement Intentions topics were released on TableBuilder on 28 May 2013. TableBuilder is an online tool for creating tables and graphs from ABS survey data. The data in this product can be used to obtain a better understanding of the factors that influence people to participate (more) in the labour force and the hours they work, and obtain a better understanding of retirement trends and issues facing older Australians. For more information see Microdata: Barriers and Incentives to Labour Force Participation, Retirement and Retirement Intentions, July 2010 to June 2011 (cat. no. 6238.0.55.001).

The May 2012 Employee Earnings and Hours confidentialised unit record file was released on 4 June 2013, and enables users to tabulate, manipulate and analyse data on the composition and distribution of earnings and hours of employees and whether their pay is set by award, collective agreement or individual arrangement. For more information see Microdata: Employee Earnings and Hours, Australia, May 2012 (cat. no. 6306.0.55.001).

In December 2012, the ABS released the Longitudinal Labour Force CURF. These products provide data on labour force status, employment status, hours worked, underemployment status, duration of unemployment, not in the labour force (NILF) status, retirement status, as well as relevant standard demographic, family, educational, and other details and characteristics. For more information see Microdata: Longitudinal Labour Force, Australia 2008-10 (cat. no. 6602.0).

REVIEW OF LABOUR BUSINESS SURVEY COLLECTIONS

Industrial Disputes

Since the last comprehensive review of Employee Earnings and Hours statistics in 1999 there have been a number of changes to industrial relations legislation and, more generally, the structure of the labour market and nature of working arrangements have also changed considerably. Therefore, the ABS has commenced a review of the Industrial Disputes statistics and was previously advised in the March issue of the [Industrial Disputes, Australia, March 2013](#) (cat. no. 6321.0.55.001) released in June.

An important element of the review will be to understand the contemporary and potential future data requirements of users. Consultation with key users occurred in June and early July 2013. Once the review is complete, information about any changes to the Industrial Disputes statistics will be communicated to users. If you would like to contribute to the review, please contact Kirsty Leslie at kirsty.leslie@abs.gov.au.

Employee Earnings and Hours

The Employee Earnings and Hours has been conducted since 1974 and is currently conducted biennially. The most recent Employee Earnings and Hours was conducted in respect of May 2012, with the next survey scheduled for May 2014.

The ABS is currently reviewing the survey to ensure that the content reflects the current and emerging industrial relations environment and continues to meet the critical data needs of key users. Consultation process will be conducted regarding the potential improvements and the relative priorities of the suite of data that are currently collected in Employee Earnings and Hours survey against any potential new items. If you would like to contribute to the review, please contact Kirsty Leslie at kirsty.leslie@abs.gov.au.

RELEASE OF 2013 ISSUE OF LABOUR STATISTICS: CONCEPTS, SOURCES AND METHODS

In May 2013 an updated version of Labour Statistics: Concepts, Sources and Methods was released. It provides a comprehensive discussion and description of the concepts and definitions underpinning Australian labour statistics and the data sources and methods used in the collection and compilation of these statistics. It explains what the statistics measure, how the various measures relate to each other and how they are produced. It also discusses the factors influencing their accuracy and reliability.

To ensure that the concepts used and the references are relevant and current, chapters of this publication will be updated periodically.

For further information see Labour statistics: Concepts, Sources and Methods, 2013 (cat. no. 6102.0.55.001).

CHANGES TO LABOUR TOPICS @ A GLANCE PAGE

The Labour Topics @ a Glance page on the ABS website has recently been revised, and now organises labour statistics topics thematically, making it easier to find data and information on the various aspects of the labour market. The Labour Topics @ a Glance provides a guide to the full range of ABS statistics on the labour market, as well as links to the latest data releases.

To find Topics @ a Glance, go to <https://www.abs.gov.au> [Topics @ a Glance > People > Labour].

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This section provides an archive of articles and analysis published in Australian Labour Market Statistics, promoting the effective use of labour market statistics. Articles are sorted by topic.

Articles on labour related topics are also regularly released in Australian Social Trends (cat. no. 4102.0).

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Employment Type
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Extended labour force underutilisation rate

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EXTENDED LABOUR FORCE UNDERUTILISATION RATE

Introduction

The number of unemployed people and the unemployment rate are both measures that are widely used as indicators of available labour resources which are not currently being utilised in the economy. Despite the high profile of the unemployment rate, no single measure can fully capture the complexity of underutilisation in the labour market.

The ABS therefore publishes a number of supplementary measures of labour underutilisation on a regular basis to better inform users about the structure and dynamics of the labour market. The measures are:

- underemployment rate - the number of people underemployed expressed as a proportion of the labour force;
- labour force underutilisation rate - the unemployed, plus the underemployed, expressed as a proportion of the labour force; and
- extended labour force underutilisation rate - the unemployed, plus the underemployed, plus two groups of persons marginally attached to the labour force, expressed as a proportion of the labour force augmented by the two groups of marginally attached persons.

The quarterly underemployment and labour force underutilisation rates are both available in Labour Force, Australia (cat. no. 6202.0). The

extended labour force underutilisation rate was first released in the Measures of Labour Underutilisation Information Paper, February 2002 (cat. no. 6296.0) and since April 2003 it has been published annually in Australian Labour Market Statistics (cat. no. 6105.0).

Extended labour force underutilisation rate components

In addition to the unemployed and the underemployed, the extended labour force underutilisation rate includes two groups of people with marginal attachment to the labour force, namely:

1. people who are actively looking for work and who could start within four weeks, but are not available to start in the reference week; and
2. discouraged job seekers¹.

Most components of the extended labour force underutilisation rate are sourced from the Labour Force Survey, with the exception of discouraged job seekers. Data on discouraged job seekers are available from the annual Persons Not in the Labour Force supplementary survey currently conducted in September each year. For a more detailed explanation of the calculation of this measure, please see the Extended Labour Force Underutilisation Rate article released in Australian Labour Market Statistics, Jul 2009 (cat. no. 6105.0).

2012 Extended labour force underutilisation rate

In August 2012, the extended labour force underutilisation rate was 13.1%. This rate was higher for females than males (15.2% and 11.3% respectively) due to a higher rate of underemployment amongst females than males and a larger number of females than males being marginally attached to the labour force.

Table 1 illustrates the various underutilisation rates and populations contributing to the extended labour force underutilisation rate.

Table 1

August 2012	Units	Males	Females	Persons
Unemployment rate(a)	%	5.1	4.9	5.0
Underemployment rate (b)	%	5.2	9.0	6.9
Labour force underutilisation rate (c)	%	10.3	13.8	11.9
Extended labour force underutilisation rate (d)	%	11.3	15.2	13.1
Unemployed	'000	334.2	266.6	600.9
Underemployed	'000	338.4	494.1	832.6
Marginally attached to the labour force	'000	74.3	87.7	161.8

(a) The unemployment rate is the unemployed expressed as a proportion of the labour force.

(b) The underemployment rate is the underemployed expressed as a proportion of the labour force.

(c) The labour force underutilisation rate is the unemployed, plus the underemployed, expressed as a proportion of the labour force.

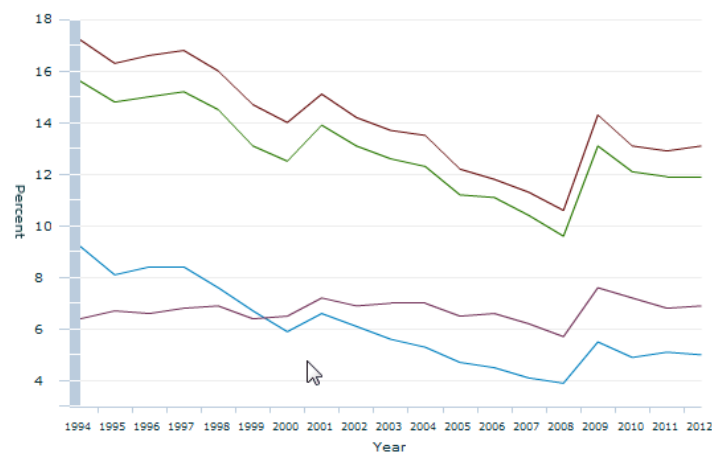
(d) The extended labour force underutilisation rate is the unemployed, plus the underemployed, plus two groups of persons marginally attached to the labour force, expressed as a proportion of the labour force augmented by the two groups of marginally attached persons.

Source: Australian Labour Market Statistics, August 2012 (cat. no. 6105.0)

Historically, movements in unemployment have been the primary drivers of movements in the suite of underutilisation measures. In recent years, however, underemployment has had a greater contribution to the broader underutilisation measures.

Graph 1 shows the movements between August 1994 and August 2012 for the four measures of labour underutilisation. The pattern of the four measures has been similar since 1994 with the exception of the underemployment rate, which was lower than the unemployment rate between 1994 and 1999. From 2001 to 2008, the unemployment rate gradually decreased while underemployment rate remained steady, and has been consistently higher than the unemployment rate since. The extended labour force underutilisation rate declined between 2001 and 2008, before increasing sharply in 2009 from 10.6% to 14.3%. Since 2009 there has been a steady decline in the rate to 13.1% in 2012.

Graph 1 Measures of Labour Underutilisation (Annual)



■ Unemployment rate ■ Underemployment rate
■ Labour Force Underutilisation rate ■ Extended Labour Force Underutilisation rate

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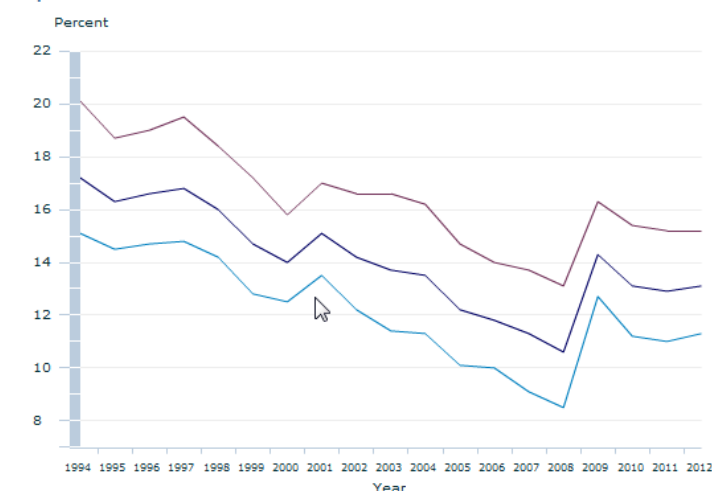
© Commonwealth of Australia 2013.

Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

The extended labour force underutilisation rate has been consistently higher for females than males since 1994. In 2012, the difference between the rate for females (15.2%) and males (11.3%) was 3.9 percentage points. The difference was most pronounced in 2003, with a 5.2 percentage point difference (16.6% for females and 11.4% for males).

Graph 2 Extended Labour Force Underutilisation Rate



■ Males ■ Females ■ Persons

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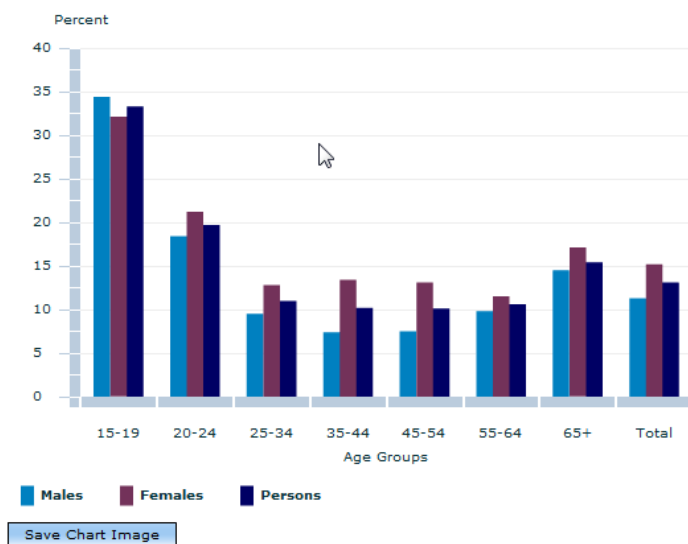
© Commonwealth of Australia 2013.

Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

As seen in Graph 3, in August 2012, persons aged 15-19 years had the highest extended labour force underutilisation rate, followed by persons aged 20-24 years. The next four age groups between 25-64 years were very similar with rates at just over 10%. The extended labour force underutilisation rate was higher for females than for males in all the age groups with the exception of those aged 15-19 years (males 34.4% and females 32.1%).

Graph 3 Extended Labour Force Underutilisation Rate - Age & Sex



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Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

STATES AND TERRITORIES

Overall differences in the extended labour force underutilisation rate between the states and territories are primarily driven by differences in unemployment and underemployment rates.

In August 2012, the lowest underemployment rate of 2.8% was recorded for Northern Territory followed by Western Australia and Australian Capital Territory (5.3% and 5.4% respectively). Australian Capital Territory recorded the lowest unemployment rate in August 2012 of 3.3% followed by 3.8% rate for both Western Australia and Northern Territory. Northern Territory was the only state or territory where the underemployment rate was lower than the unemployment rate.

In August 2012, the highest extended labour force underutilisation rate was for Tasmania (18.1%), followed by South Australia (14.6%), Victoria (14.2%) and Queensland (13.8%). All these states had the extended labour force underutilisation rates above the national average (13.1%).

Graph 4 shows the four measures of labour underutilisation for all the states and territories and Australia for August 2012.

Graph 4 Labour Underutilisation Rates - States & Territories



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Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

Conclusion

While the unemployment rate is the most commonly used measure of available labour supply, it is by no means a comprehensive measure. The ABS produces a range of measures, the broadest being the extended labour force underutilisation rate which takes into account the unemployed, underemployed and some persons marginally attached to the labour force. This broad measure is higher than other measures of labour underutilisation and reflects a greater potential labour supply. For example, in August 2012 the unemployment rate for Australia was 5.0% compared to an underutilisation rate of 11.9% and an extended labour force underutilisation rate of 13.1%, thus giving a more comprehensive picture of the potential labour supply within the economy.

End note

1. Discouraged job seekers are defined as people who want to work and could start work within four weeks if offered a job, but whose main reason for not actively looking for work includes the following reasons: considered to be too young or too old by employers; believes ill health or disability discourages employers; lacked necessary schooling, training, skills or experience; difficulties because of language or ethnic background; no jobs in their locality or line of work; no jobs in suitable hours; and no jobs at all.

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Employment Measures

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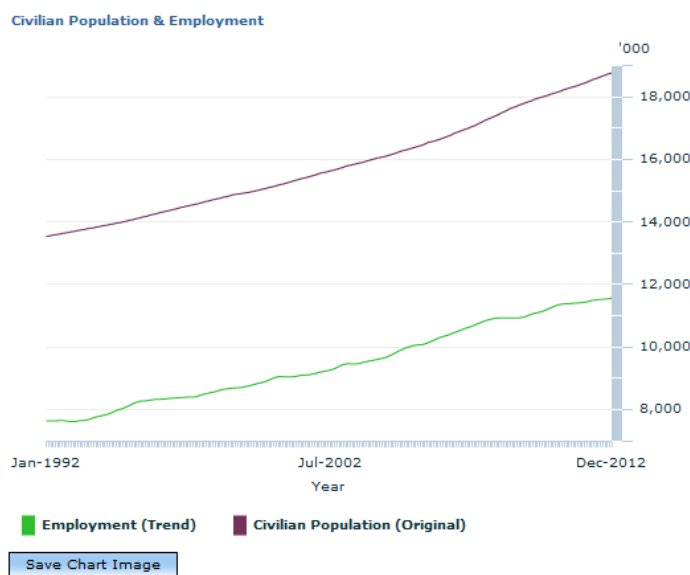
EMPLOYMENT MEASURES

Introduction

Estimates of employment are some of the key statistics produced from the ABS's monthly Labour Force Survey (LFS). While the number of people who are employed is a widely used measure from the LFS, other measures of employment, such as those that relate employment to various populations, can be just as useful - if not more useful - in understanding the characteristics of, and changes in, Australia's labour market. This article discusses some of the key employment measures that can be used to help understand the labour market.

Level estimates versus rates

Employment levels show the number of people who worked for at least one hour or more for pay or profit in the survey's reference week, or had a job but were away from work. Despite being the most commonly used measure of employment, employment levels do not reveal any striking dynamics in the labour market when used in isolation, as the trend generally increases at a steady rate over time. This is because employment level estimates are usually related to population growth. It can be seen in the following graph that the number of people employed generally increases over time at a similar rate to the population. From 2008, however, employment growth has increased at a slower rate than previous years, while population growth has increased at a faster rate.



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Source(s): Labour Force, Australia (cat. no. 6202.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

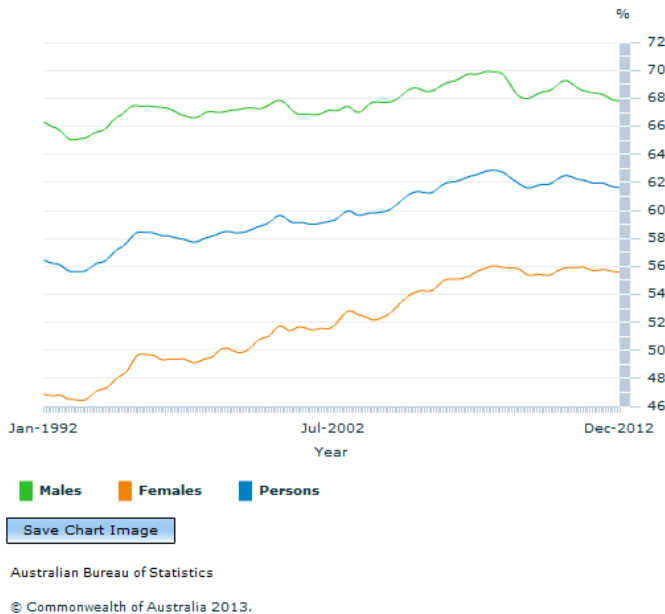
Employment rates are an alternative way to measure employment and can be more revealing. Employment rates show the number of people of a particular group that are employed as a percentage of that particular group (the denominator). Employment levels tend to increase over time, but the employment rates discussed below may move in the opposite direction.

There are a number of different employment rates that can be produced through using different denominators and these are discussed below.

The employment to population ratio

The employment to population ratio shows the number of people aged 15 years and over that are employed as a percentage of the civilian population aged 15 years and over. This measure removes the influence of population growth when interpreting changes in employment estimates. In doing so, it enables comparisons of employment rates at different periods of time, as well as between countries. Although males have a higher employment to population ratio than females, the gap between males and females has decreased over time, dropping from 19 percentage points in 1992 to 12 percentage points in 2012.

Employment to population ratio (Trend)



Source(s): Labour Force, Australia (cat. no. 6202.0)

The employment to working age population ratio

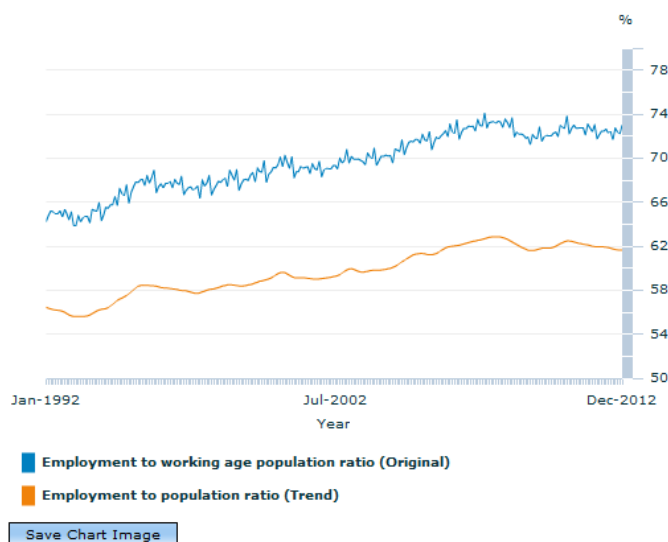
The employment to working age population ratio shows the number of people that are employed (aged 15 to 64 years) as a percentage of the working age population (civilian population aged 15 to 64 years). This measure is less impacted over time by changing demographic structures than the employment to population ratio, as it excludes the older age group (those aged 65 years and over) of which the majority (88%) are not in the labour force, including those retired or permanently not intending to work. In 2012 employed people aged 65 years and over accounted for only 3% of all employed people and 12% of the civilian population aged 65 years and over.

In the graph below it can be seen that the employment to working age population ratio is roughly 10 percentage points higher than the employment to population ratio, however they have both changed at similar rates over the past 20 years.

Because there are some sensitivities when defining 'working age' it is also possible to create similar measures of employment for 'prime age' workers, typically defined as those aged 25 to 54 years, the age groups with higher labour force participation. In 2012, people aged 25 to 54 years had a labour force participation rate of 83%, relatively higher than people aged 15 to 24 years (68%) and 55 years and over (35%).

The employment to working age population ratio is useful to use when comparing different population groups, e.g. Aboriginal and Torres Strait Islander population with the non-Indigenous population. However, where there are significant differences in age structures between population groups, age-standardised estimates can be created to account for the differences in age structures. Age standardisation is a statistical method that adjusts crude rates to account for age differences between study populations. Age standardisation enables better comparisons between different populations, however, creating age standardised estimates can be time consuming and difficult to explain and interpret, while the employment to working age population ratio is a simpler way to compare different groups.

Employment Ratios



Australian Bureau of Statistics

© Commonwealth of Australia 2013.

Source(s): Labour Force, Australia (cat. no. 6202.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

The employment to labour force ratio

The employment to labour force ratio, also known as the employment rate, is the inverse of the unemployment rate. The employment to labour force ratio shows the number of people that are employed as a percentage of the labour force. This ratio is useful when looking at employment as a proportion of all currently available labour supply, but is a relatively narrow measure when compared with the employment to population ratio.

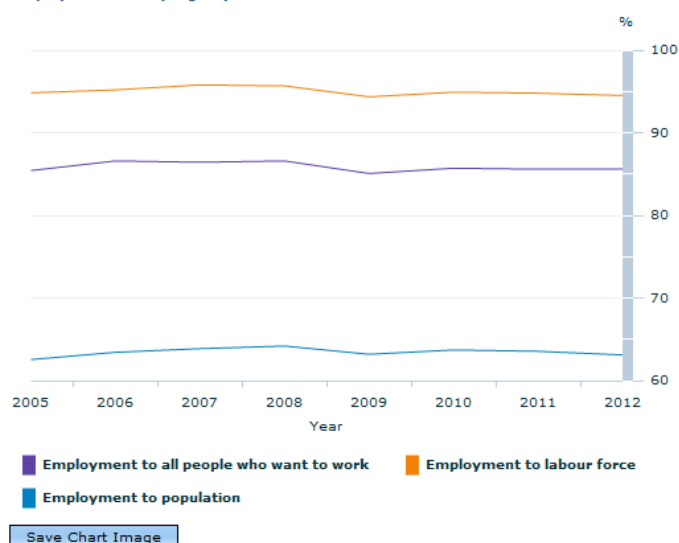
The above graph shows that the majority of the labour force is employed. The employment to labour force ratio reached a high of 95.8% in 2008 before dropping to 94.4% in 2009 during the most recent economic downturn.

Employment as a proportion of all people who are in work or want to work

Examining employment in relation to all people who are in work or want to work can be useful to understand how well people's aspirations to work are being met in the economy. This measure is similar to the employment to labour force ratio, however the denominator is expanded to include people who are not in the labour force who report that they want to work, i.e. that they have a desire or aspiration for work. Data are sourced from the Persons Not in the Labour Force survey (cat. no. 6220.0), which is currently conducted in September each year.

The employment to all people who are in work or want to work ratio is roughly 10 percentage points lower than the employment to labour force ratio. This is due to more people being included in the denominator while the number of employed (in the numerator) stays the same. The employment to all people who are in work or want to work ratio has stood at over 85% since 2005.

Employment ratios (Original)



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Source(s): Persons Not in the Labour Force (cat. no. 6220.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

Employment measures are a useful way of understanding the characteristics of, and changes in, the labour market, but users should consider which measure best suits their needs. In addition, these measures alone are not sufficient for completely understanding the

performance and nature of the labour market. Additional measures and statistics are required, such as hours worked, unemployment, underemployment, earnings and working arrangements. These, and other, statistics are released on a regular basis from the ABS Labour Force Survey and suite of labour supplementary surveys.

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A comparison of the Census and the Labour Force Survey

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A COMPARISON OF THE CENSUS AND THE LABOUR FORCE SURVEY

INTRODUCTION

The ABS's Labour Force Survey (LFS) and the Census of Population and Housing both collect information about labour market activity of people aged 15 years and over. The LFS is a household survey which provides Australia's official estimates of employment and unemployment, which are released on a monthly basis. The Census on the other hand is conducted every five years and aims to measure the number of people living in Australia on Census night and the dwellings in which they live. The Census also collects information about a range of characteristics of people, including, but not limited to, information about their labour force status.

The Census provides a count or snapshot of people living in the country on Census night. Being a Census, it is a good source of information for small population groups and areas and allows for the analysis of industry and occupation data at a more detailed level. But it is conducted on a five yearly basis, therefore not an appropriate source of data for monitoring ongoing labour market conditions. The LFS on the other hand is conducted monthly and is designed specifically to measure changes over time in the Australian labour force. Therefore it provides a more accurate estimate of key labour force statistics of the Australian economy as well as a range of more detailed data.

While both collections measure the same concepts surrounding the labour force in Australia, there are a number of differences between the two that should be considered. This article describes the differences between the collections and explains why estimates from the Census and the LFS are not directly comparable.

DIFFERENCES BETWEEN THE CENSUS AND THE LFS

Scope and coverage

While the scope of the Census is similar to that of the LFS, there are differences which can have an impact on the data. The scope of the LFS is limited to the civilian population of Australia, therefore members of permanent defence forces are excluded from the survey. In contrast, the Census includes everyone living in Australia on Census night, including the defence forces. This has the impact of increasing the number and proportion of employed people in the Census relative to the LFS, given that all members of the permanent defence forces are employed.

The Jervis Bay Territory, the Territory of Christmas Island and the Cocos (Keeling) Islands are currently out of scope for ABS household surveys, including the LFS, but are in scope of the Census.

The Census includes only those people who are in Australia on Census night, while the LFS includes usual residents who are out of the country for less than 6 weeks.

Although the Census aims to capture information about every person in Australia on Census night, it is inevitable that in such a large undertaking some people will not be counted. To account for this, a Post Enumeration Survey is undertaken a few weeks after the Census, to estimate the number and characteristics of people who were not counted on Census night.

By contrast, the LFS is a sample survey and weighted to an independent population benchmark based on the Estimated Resident Population (ERP). This ensures that the LFS estimates add up to an independently estimated distribution of the usually resident civilian population aged 15 years and over, regardless of any sample lost due to non-response.

The ABS uses overseas arrivals and departures data to estimate the number of people overseas on Census night in calculating the ERP, but no adjustment is made to the Census data based on these estimates. The LFS estimates for August 2011 are currently benchmarked to the ERP based on the 2006 Census. The rebasing of the LFS benchmarks to the 2011 Census-based ERP estimates will be undertaken in early 2014.

Collection methodology

The Census uses a self-enumeration methodology where households are required to complete the Census form themselves and therefore relies entirely on the initial response provided by the respondents. By contrast, the LFS is conducted predominantly by trained ABS interviewers, either face-to-face or over the phone. Post the 2011 Census the ABS commenced the introduction of on-line self-enumeration for the LFS. For more details see the April 2013 issue of Labour Force, Australia (cat. no. 6202.0). Although both enumeration methods can lead to an error if the question is misunderstood, this is less likely to happen with the LFS where the interviewer is able to clarify responses to questions asked. The interviewer is also able to request additional information if answers provided are not sufficiently detailed to ensure accurate classification or coding of industry and occupation of employment.

The Census determines labour force status (i.e. whether a person is employed, unemployed or not in the labour force) from responses to four questions, whereas in the LFS, labour force status is derived from around 30 questions. Many of the additional questions in the LFS relate to the circumstances where a person may be defined as 'employed' even though they were not at work during the survey reference week. The use of the reduced question set in the Census may result in some employed people being incorrectly categorised as either unemployed or not in the labour force, and some unemployed people being categorised as not in the labour force. The additional questions in the LFS therefore results in a more accurate classification and better measure of the employed and unemployed at a point in time.

Sampling error

The estimates derived from the LFS are based on information obtained from a sample of dwellings, therefore the results are subject to sampling error. The sample is designed to ensure that sampling error is reduced to a minimum at the national and state/territory levels.

However, it can be higher for labour force regions or for detailed breakdowns. The estimates are therefore accompanied by information on the quality of the estimates including relative standard errors. By contrast, the Census is not subject to sampling error because it aims to collect the information from everyone in Australia on Census night.

Treatment of non-response

Another difference between the two collections is the treatment of non-response. For various reasons, a proportion of households that are occupied on Census night either cannot or do not return their Census forms and are referred to as the non-response population. In the 2011 Census, this population was 3.7%. To account for this, persons in non-responding households are imputed, along with some demographic characteristics. In contrast, the LFS does not include non-responding households because only fully responding households contribute to the estimates, with any non-response being compensated for by the weighting process.

Table 1. Summary of differences between the Census and the LFS

	Census	LFS
Scope and coverage	Includes anybody living in Australia on Census night.	Limited to the civilian population. Includes usual residents who are out of the country for less than 6 weeks. Excludes members of the defence forces.
Frequency	Conducted every five years.	Monthly collection.
Reference period	The week prior to the Census night.	The week prior to the week in which the survey is conducted.
Collection methodology	Self-enumeration.	Interview - personal visit or telephone.
Questions	Labour force status determined from four questions.	Labour force status determined from around 30 questions.
Treatment of non-response	Some items are imputed. Others included in 'not stated' category.	Treated as 'not stated' therefore excluded and adjusted through the weighting process.

DATA COMPARISON

The following section compares Census data on four key labour market variables with original data from the August 2011 LFS. The 2011 variables compared are labour force status, hours worked, industry of employment and occupation of employment.

Labour Force Status

Comparing the labour force status between Census and LFS data show that there are differences in the estimated number of persons across the labour force status categories, as well as for the total number of people aged 15 years and over. While the LFS estimates of employed people, unemployed people and those not in the labour force are significantly higher than the Census count, the data produced similar results using proportions.

The Census and LFS also differ in the way they determine full-time and part-time employment. In the Census, a person is considered to be working full-time if they worked 35 hours or more in all jobs during the week prior to Census night or part-time if they worked less than 35 hours. In addition, they have a category for 'employed away from work'.

The LFS designates full-time workers as persons who (a) usually work 35 hours or more per week in all jobs, or (b) although usually working less than 35 hours a week, actually worked 35 hours or more during the survey reference week. In the LFS, part-time workers are those who usually work less than 35 hours per week, and either did so during the reference week, or were not at work in the reference week. People employed but away from work are categorised as either employed full-time or part-time based on actual hours worked.

Table 2. Labour Force Status

	Number of persons (^{'000})	2011 Census Percent (%)	Number of persons (^{'000})	LFS, August 2011(a) Percent (%)
Labour force	10 658.5	65.0	11 917.9	65.0
Employed total	10 058.3	61.4	11 311.0	61.6
Employed, worked full-time	6 367.6	38.9	7 927.6	43.2
Employed, worked part-time	3 063.0	18.7	3 383.4	18.4
Employed, away from work (a)	627.8	3.8	-	-
Unemployed total	600.1	3.7	606.9	3.3
Unemployed, looking for full-time work	357.9	2.2	430.7	2.3
Unemployed, looking for part-time work	242.3	1.5	176.2	1.0
Not in the labour force	5 729.3	35.0	6 430.5	35.0
Total (b)	16 387.8	100.0	18 348.3	100.0

Table source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed (cat. no. 6291.0.55.001).

Table notes:

- In the LFS people employed but away from work are categorised as either employed full-time or part-time based on usual hours worked.
- The number of people with labour force status 'not stated' in the Census (975,929) have been removed to enable better comparison with the LFS.
- Components may not necessarily add up to the totals due to rounding.

Hours worked

The hours worked data in the Census refers to hours worked in the reference week and are therefore compared with the LFS data item 'actual hours worked', rather than 'usual hours worked'.

Comparing the actual hours worked using Census and LFS data indicated that they broadly had similar distributions. But the category 40 hours had 18.8% for the Census and 14.6% for the LFS. Also a higher proportion of employed people in the Census indicated that they worked 35-39 or 40 hours, compared with the LFS. This may partly be due to rounding of hours worked by people in the Census (self-enumeration) to their perception of full-time hours (e.g. 38, or 40 hours), while more precise estimates may be provided when responding to LFS interviewers.

The Hours worked item was not stated for 2.2% (218,484) of employed persons in the Census and their exclusion may impact on the distribution.

Table 3. Hours worked

	Number of persons ('000)	2011 Census Percent (%)	Number of persons ('000)	LFS, August 2011 Percent (%)
0 hours	409.3	4.2	611.8	5.4
1-15	1 087.8	11.1	1 287.2	11.4
16-34	1 975.2	20.1	2 561.3	22.6
35-39	1 808.9	18.4	1 954.2	17.3
40 hours	1 846.5	18.8	1 653.6	14.6
41 and above	2 712.2	27.6	3 242.9	28.7
Total (a)	9 839.8	100.0	11 311.0	100.0

Table source: Source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed (cat. no. 6291.0.55.001)

Table notes:

- a. The number of people whose hours worked was 'not stated' in the Census (218,484) has been removed from the Census Total of 10,057,484 to aid comparison.
b. Components may not necessarily add up to the totals due to rounding.

Industry of employment

Industry of employment in both Census and LFS data produced similar distributions. The industry division 'Retail trade' had the highest percentage of 10.8% and 10.7% for Census and LFS respectively, whilst the division 'Electricity, gas, water and waste services' had the smallest percentage of 1.2% for both Census and LFS.

The industry of employment was not determined for 2.3% (233,886) of employed people in the Census as it was either 'not stated' or 'inadequately described'.

Table 4. Industry of employment

Industry (a)	Number of persons ('000)	2011 Census Percent (%)	Number of persons ('000)	LFS, August 2011 Percent (%)
Agriculture, forestry and fishing	249.8	2.5	312.2	2.8
Mining	176.6	1.8	226.2	2.0
Manufacturing	902.8	9.2	942.6	8.3
Electricity, gas, water and waste services	115.6	1.2	141.3	1.2
Construction	828.9	8.4	1 028.5	9.1
Wholesale trade	403.8	4.1	405.7	3.6
Retail trade	1 057.3	10.8	1 214.8	10.7
Accommodation and food services	650.4	6.6	776.4	6.9
Transport, postal and warehousing	479.2	4.9	582.0	5.1
Information media and telecommunications	178.1	1.8	203.7	1.8
Financial and insurance services	377.4	3.8	429.4	3.8
Rental, hiring and real estate services	158.9	1.6	193.3	1.7
Professional, scientific and technical services	730.1	7.4	874.9	7.7
Administrative and support services	323.8	3.3	406.1	3.6
Public administration and safety	689.9	7.0	732.9	6.5
Education and training	804.4	8.2	865.3	7.7
Health care and social assistance	1 167.6	11.9	1 320.1	11.7
Arts and recreation services	151.6	1.5	207.6	1.8
Other services	378.2	3.8	448.1	4.0
Total (b)	9 824.4	100.0	11 311.0	100.0

Table source: Source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003).

Table notes:

- a. Classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 (cat no. 1292.0).
b. The number of people whose industry of employment was either 'not stated' (109,131) or 'inadequately described' (124,755) in the Census have been removed from the Census total of 10,058,325 to aid comparison.
c. Some components may not sum up to the totals due to rounding.

Occupation of employment

Similar to industry, the distribution across occupation of employment was similar for both the Census and the LFS. The occupation category 'Professionals' had the highest percentage of 21.7% and 21.6% respectively for Census and the LFS. The occupation category 'Machinery operators and drivers' had the smallest percentage of 6.7% and 6.8% respectively.

The occupation of employment could not be determined for 1.9% (189,013) in the Census as it was either 'not stated' or 'inadequately described'.

Table 5. Occupation of employment

Occupation (a)	'000	Census 2011 %	'000	LFS, August 2011 %
Managers	1 294.0	13.1	1 469.4	13.0
Professionals	2 145.4	21.7	2 439.1	21.6
Technicians and trades workers	1 425.1	14.4	1 608.1	14.2
Community and personal service workers	971.9	9.8	1 100.1	9.7
Clerical and administrative workers	1 483.6	15.0	1 704.1	15.1
Sales workers	942.1	9.5	1 057.4	9.3
Machinery operators and drivers	659.6	6.7	773.7	6.8
Labourers	947.6	9.6	1 159.2	10.2
Total (b)	9 869.3	100.0	11 311.0	100.0

Table source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003).

Table notes:

- a. Classified according to ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 (cat no. 1220.0).

b. The number of people whose occupation was either 'not stated' (79,861) or 'inadequately described' (109,152) in the Census has been removed from the Census total of 10,058,325 to aid comparison.
c. Some components may not sum up to the totals due to rounding.

Conclusion

Comparisons of the Census and LFS outputs are difficult because their purpose, scope, frequency and mode of collection vary. Understanding these differences helps explain why observed estimates from the LFS are different from the Census. However, this article illustrates that, while the level estimates are different the distributions of data from both sources are generally similar.

For the most authoritative and recent estimates of labour market information including employment and unemployment, labour force statistics published monthly by the ABS in Labour Force, Australia (cat no. 6202.0) are the most appropriate. The Census is valuable for detailed data and analysis on the economically active population and for regional and small population analysis.

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Other Labour Market Related Articles

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OTHER LABOUR MARKET RELATED ARTICLES

Articles that have recently been published in Labour Force, Australia (cat. no. 6202.0) and Average Weekly Earnings, Australia (cat. no. 6302.0):

Transition to online collection of the Labour Force Survey (Apr 2013)
Estimating Jobs in the Australian Labour Market (Feb 2013)
Forthcoming improvements to the content of the Labour Force and Labour Supplementary Surveys (Jan 2013)
Understanding the Australian Labour Force using ABS Statistics (Jan 2013)
Rebenchmarking of Labour Force Series (Nov 2012)
Salary sacrifice (Nov 2012)

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FURTHER INFORMATION

For further information or queries regarding labour related statistics, contact the Labour Market Statistics Section on (02) 6252 7206 or email labour.statistics@abs.gov.au.

Published information is available free of charge on the ABS website. Where data are not available on our website at the level of detail you require, the ABS may be able to provide you with customised data to meet your specific requirements. To discuss options and for help finding and accessing ABS products and services please contact the National Information Referral Service on 1300 135 070. This service can provide a wide range of data on a fee for service basis and provide you with an obligation free quote.

All key labour statistical releases and publications can be found at the Key Labour Releases section of the Labour Topics @ a Glance page.

INTRODUCTION TO LABOUR STATISTICS TRAINING

Introduction to Labour Statistics is a one-day training course that is designed for anyone who uses or needs to understand ABS Labour Statistics. The course provides an overview of the range of concepts and issues associated with ABS labour statistics. It explores the data produced by both households and employer based collections, and highlights the range of data available.

For more details about the training course, or to register interest in attending, please refer to the ABS Training page or contact Pourus Bharucha on (02) 6252 6218 or email pourus.bharucha@abs.gov.au.

ABOUT THE ABS LABOUR STATISTICS PROGRAM

LABOUR MARKET STATISTICS NATIONAL STATISTICS CENTRE

The Labour Market Statistics National Statistics Centre provides statistical leadership in the development, production and dissemination of labour market statistics. The area undertakes a range of activities to:

- promote the effective use of labour statistics;
- influence the development of national and international frameworks, and assist with their implementation; and
- improve the relevance of labour market statistics produced by the ABS.

The Labour Market Statistics National Statistics Centre represents the interests of key users to ensure that their requirements are reflected in the program of ABS household and employer based collections. It promotes strategies for increasing the awareness of, and access to, both ABS and non-ABS data on labour market issues. The centre seeks to improve users' understanding of labour market data to encourage the effective use of this data in discussions about labour market issues, for example through presenting the Introduction to Labour Statistics course and maintaining the Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001). For more information please contact Kirsty Leslie (Director) on (02) 6252 5436 or email <kirsty.leslie@abs.gov.au>.

LABOUR EMPLOYER SURVEYS BUSINESS STATISTICS CENTRE

The Labour Employer Surveys Business Statistics Centre is based in Perth and is responsible for a suite of national surveys which provide information about the structure and performance of the Australian labour market. Data are collected and produced in relation to average weekly earnings, job vacancies, industrial disputes, and employee earnings and hours. For more information about these surveys, please contact Manpreet Singh (Director) on (08) 9360 5916 or email <manpreet.singh@abs.gov.au>.

LABOUR FORCE AND SUPPLEMENTARY SURVEYS HOUSEHOLD SURVEY CENTRE

The Labour Force and Supplementary Surveys Household Survey Centre is responsible for the management of the Monthly Population Survey (MPS) which provides extensive information covering Australian labour supply and demand, and workplace relations. The MPS includes the Labour Force Survey, Labour Supplementary Surveys (LSS) and the Multipurpose Household Survey (MPHS). The Labour Force Survey provides monthly estimates of the number of employed and unemployed people, the unemployment rate and the labour force participation rate. The LSS and MPHS collect information on a range of labour topics including forms of employment, job search experience, labour mobility, employee earnings, benefits and trade union memberships, underemployed workers, people not in the labour force, retirement, and work-related injuries. For more information about the work of this section, please contact Cassandra Gligora (Director) on (02) 6252 5255 or email <cassandra.gligora@abs.gov.au>.

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Extended labour force underutilisation rate (Feature Article)

EXTENDED LABOUR FORCE UNDERUTILISATION RATE

Introduction

The number of unemployed people and the unemployment rate are both measures that are widely used as indicators of available labour resources which are not currently being utilised in the economy. Despite the high profile of the unemployment rate, no single measure can fully capture the complexity of underutilisation in the labour market.

The ABS therefore publishes a number of supplementary measures of labour underutilisation on a regular basis to better inform users about the structure and dynamics of the labour market. The measures are:

- underemployment rate - the number of people underemployed expressed as a proportion of the labour force;
- labour force underutilisation rate - the unemployed, plus the underemployed, expressed as a proportion of the labour force; and
- extended labour force underutilisation rate - the unemployed, plus the underemployed, plus two groups of persons marginally attached to the labour force, expressed as a proportion of the labour force augmented by the two groups of marginally attached persons.

The quarterly underemployment and labour force underutilisation rates are both available in Labour Force, Australia (cat. no. 6202.0). The extended labour force underutilisation rate was first released in the Measures of Labour Underutilisation Information Paper, February 2002 (cat. no. 6296.0) and since April 2003 it has been published annually in Australian Labour Market Statistics (cat. no. 6105.0).

Extended labour force underutilisation rate components

In addition to the unemployed and the underemployed, the extended labour force underutilisation rate includes two groups of people with marginal attachment to the labour force, namely:

1. people who are actively looking for work and who could start within four weeks, but are not available to start in the reference week; and
2. discouraged job seekers¹.

Most components of the extended labour force underutilisation rate are sourced from the Labour Force Survey, with the exception of discouraged job seekers. Data on discouraged job seekers are available from the annual Persons Not in the Labour Force supplementary survey currently conducted in September each year. For a more detailed explanation of the calculation of this measure, please see the Extended Labour Force Underutilisation Rate article released in Australian Labour Market Statistics, Jul 2009 (cat. no. 6105.0).

2012 Extended labour force underutilisation rate

In August 2012, the extended labour force underutilisation rate was 13.1%. This rate was higher for females than males (15.2% and 11.3% respectively) due to a higher rate of underemployment amongst females than males and a larger number of females than males being marginally attached to the labour force.

Table 1 illustrates the various underutilisation rates and populations contributing to the extended labour force underutilisation rate.

Table 1

August 2012	Units	Males	Females	Persons
Unemployment rate(a)	%	5.1	4.9	5.0
Underemployment rate (b)	%	5.2	9.0	6.9
Labour force underutilisation rate (c)	%	10.3	13.8	11.9
Extended labour force underutilisation rate (d)	%	11.3	15.2	13.1
Unemployed	'000	334.2	266.6	600.9
Underemployed	'000	338.4	494.1	832.6
Marginally attached to the labour force	'000	74.3	87.7	161.8

(a) The unemployment rate is the unemployed expressed as a proportion of the labour force.

(b) The underemployment rate is the underemployed expressed as a proportion of the labour force.

(c) The labour force underutilisation rate is the unemployed, plus the underemployed, expressed as a proportion of the labour force.

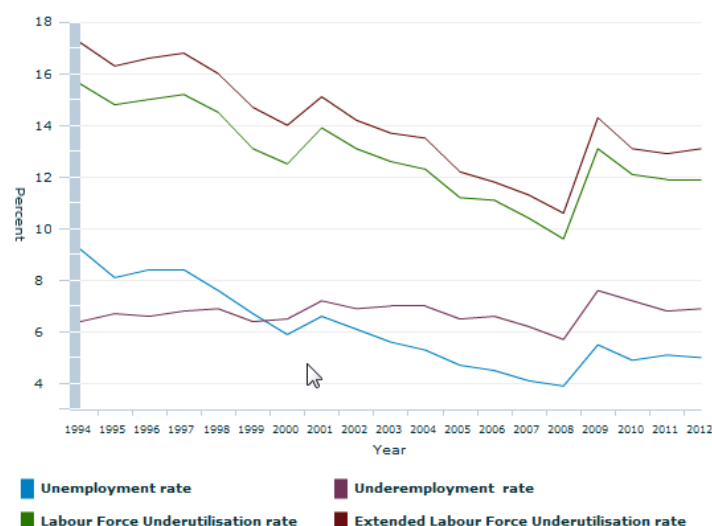
(d) The extended labour force underutilisation rate is the unemployed, plus the underemployed, plus two groups of persons marginally attached to the labour force, expressed as a proportion of the labour force augmented by the two groups of marginally attached persons.

Source: Australian Labour Market Statistics, August 2012 (cat. no. 6105.0)

Historically, movements in unemployment have been the primary drivers of movements in the suite of underutilisation measures. In recent years, however, underemployment has had a greater contribution to the broader underutilisation measures.

Graph 1 shows the movements between August 1994 and August 2012 for the four measures of labour underutilisation. The pattern of the four measures has been similar since 1994 with the exception of the underemployment rate, which was lower than the unemployment rate between 1994 and 1999. From 2001 to 2008, the unemployment rate gradually decreased while underemployment rate remained steady, and has been consistently higher than the unemployment rate since. The extended labour force underutilisation rate declined between 2001 and 2008, before increasing sharply in 2009 from 10.6% to 14.3%. Since 2009 there has been a steady decline in the rate to 13.1% in 2012.

Graph 1 Measures of Labour Underutilisation (Annual)



Save Chart Image

Australian Bureau of Statistics

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Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

The extended labour force underutilisation rate has been consistently higher for females than males since 1994. In 2012, the difference between the rate for females (15.2%) and males (11.3%) was 3.9 percentage points. The difference was most pronounced in 2003, with a 5.2 percentage point difference (16.6% for females and 11.4% for males).

Graph 2 Extended Labour Force Underutilisation Rate



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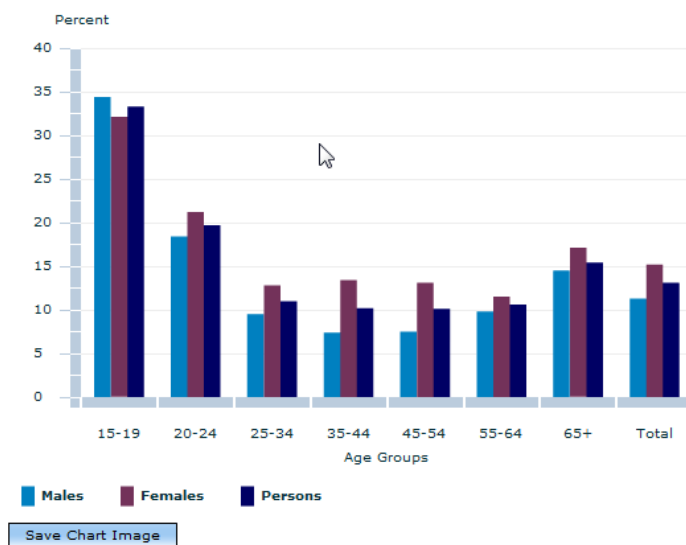
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Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

As seen in Graph 3, in August 2012, persons aged 15-19 years had the highest extended labour force underutilisation rate, followed by persons aged 20-24 years. The next four age groups between 25-64 years were very similar with rates at just over 10%. The extended labour force underutilisation rate was higher for females than for males in all the age groups with the exception of those aged 15-19 years (males 34.4% and females 32.1%).

Graph 3 Extended Labour Force Underutilisation Rate - Age & Sex



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Footnote(s): (a) Break in series as a result of changes introduced into the Labour Force Survey in April 2001

Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

STATES AND TERRITORIES

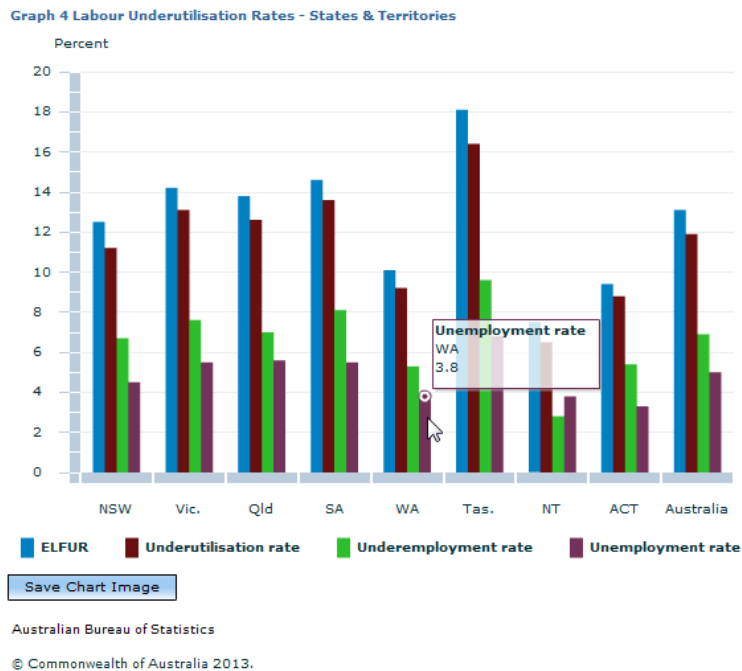
Overall differences in the extended labour force underutilisation rate between the states and territories are primarily driven by differences in unemployment and underemployment rates.

In August 2012, the lowest underemployment rate of 2.8% was recorded for Northern Territory followed by Western Australia and Australian Capital Territory (5.3% and 5.4% respectively). Australian Capital Territory recorded the lowest unemployment rate in August 2012 of 3.3% followed by 3.8% rate for both Western Australia and Northern Territory. Northern Territory was the only state or territory where the underemployment rate was lower than the unemployment rate.

In August 2012, the highest extended labour force underutilisation rate was for Tasmania (18.1%), followed by South Australia (14.6%), Victoria (14.2%) and Queensland (13.8%). All these states had the extended labour force underutilisation rates above the national average

(13.1%).

Graph 4 shows the four measures of labour underutilisation for all the states and territories and Australia for August 2012.



Source(s): Australian Labour Market Statistics (cat. no. 6105.0)

Conclusion

While the unemployment rate is the most commonly used measure of available labour supply, it is by no means a comprehensive measure. The ABS produces a range of measures, the broadest being the extended labour force underutilisation rate which takes into account the unemployed, underemployed and some persons marginally attached to the labour force. This broad measure is higher than other measures of labour underutilisation and reflects a greater potential labour supply. For example, in August 2012 the unemployment rate for Australia was 5.0% compared to an underutilisation rate of 11.9% and an extended labour force underutilisation rate of 13.1%, thus giving a more comprehensive picture of the potential labour supply within the economy.

End note

1. Discouraged job seekers are defined as people who want to work and could start work within four weeks if offered a job, but whose main reason for not actively looking for work includes the following reasons: considered to be too young or too old by employers; believes ill health or disability discourages employers; lacked necessary schooling, training, skills or experience; difficulties because of language or ethnic background; no jobs in their locality or line of work; no jobs in suitable hours; and no jobs at all.

Employment measures (Feature Article)

EMPLOYMENT MEASURES

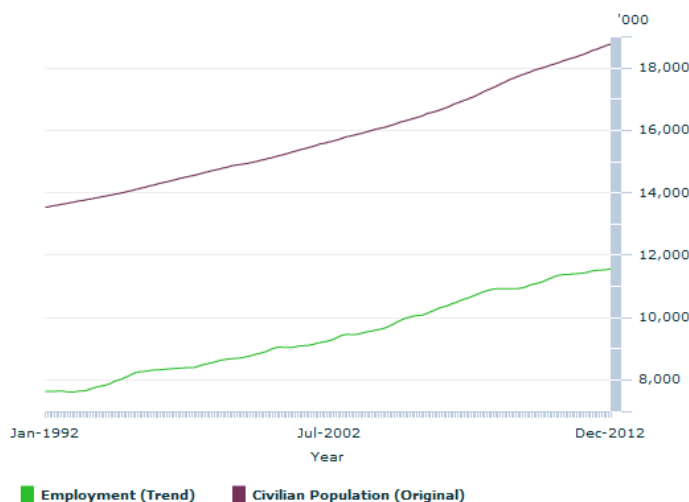
Introduction

Estimates of employment are some of the key statistics produced from the ABS's monthly Labour Force Survey (LFS). While the number of people who are employed is a widely used measure from the LFS, other measures of employment, such as those that relate employment to various populations, can be just as useful - if not more useful - in understanding the characteristics of, and changes in, Australia's labour market. This article discusses some of the key employment measures that can be used to help understand the labour market.

Level estimates versus rates

Employment levels show the number of people who worked for at least one hour or more for pay or profit in the survey's reference week, or had a job but were away from work. Despite being the most commonly used measure of employment, employment levels do not reveal any striking dynamics in the labour market when used in isolation, as the trend generally increases at a steady rate over time. This is because employment level estimates are usually related to population growth. It can be seen in the following graph that the number of people employed generally increases over time at a similar rate to the population. From 2008, however, employment growth has increased at a slower rate than previous years, while population growth has increased at a faster rate.

Civilian Population & Employment



Save Chart Image

Australian Bureau of Statistics

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Source(s): Labour Force, Australia (cat. no. 6202.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

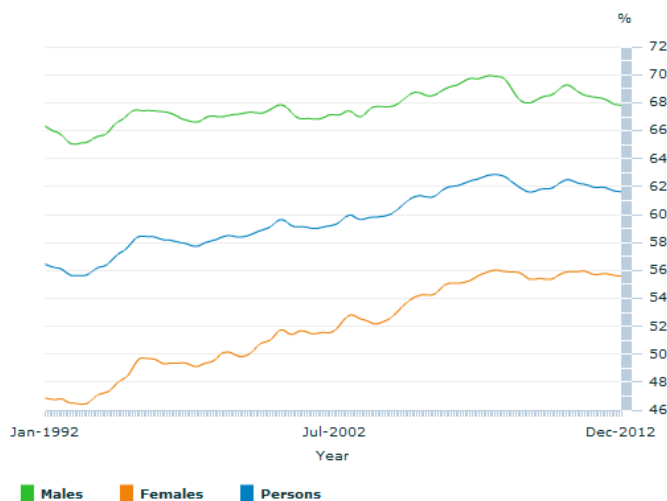
Employment rates are an alternative way to measure employment and can be more revealing. Employment rates show the number of people of a particular group that are employed as a percentage of that particular group (the denominator). Employment levels tend to increase over time, but the employment rates discussed below may move in the opposite direction.

There are a number of different employment rates that can be produced through using different denominators and these are discussed below.

The employment to population ratio

The employment to population ratio shows the number of people aged 15 years and over that are employed as a percentage of the civilian population aged 15 years and over. This measure removes the influence of population growth when interpreting changes in employment estimates. In doing so, it enables comparisons of employment rates at different periods of time, as well as between countries. Although males have a higher employment to population ratio than females, the gap between males and females has decreased over time, dropping from 19 percentage points in 1992 to 12 percentage points in 2012.

Employment to population ratio (Trend)



Save Chart Image

Australian Bureau of Statistics

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Source(s): Labour Force, Australia (cat. no. 6202.0)

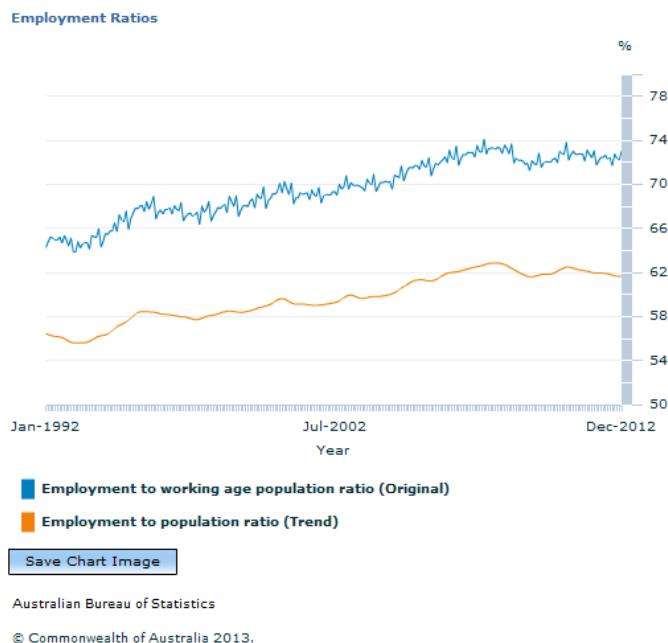
The employment to working age population ratio

The employment to working age population ratio shows the number of people that are employed (aged 15 to 64 years) as a percentage of the working age population (civilian population aged 15 to 64 years). This measure is less impacted over time by changing demographic structures than the employment to population ratio, as it excludes the older age group (those aged 65 years and over) of which the majority (88%) are not in the labour force, including those retired or permanently not intending to work. In 2012 employed people aged 65 years and over accounted for only 3% of all employed people and 12% of the civilian population aged 65 years and over.

In the graph below it can be seen that the employment to working age population ratio is roughly 10 percentage points higher than the employment to population ratio, however they have both changed at similar rates over the past 20 years.

Because there are some sensitivities when defining 'working age' it is also possible to create similar measures of employment for 'prime age' workers, typically defined as those aged 25 to 54 years, the age groups with higher labour force participation. In 2012, people aged 25 to 54 years had a labour force participation rate of 83%, relatively higher than people aged 15 to 24 years (68%) and 55 years and over (35%).

The employment to working age population ratio is useful to use when comparing different population groups, e.g. Aboriginal and Torres Strait Islander population with the non-Indigenous population. However, where there are significant differences in age structures between population groups, age-standardised estimates can be created to account for the differences in age structures. Age standardisation is a statistical method that adjusts crude rates to account for age differences between study populations. Age standardisation enables better comparisons between different populations, however, creating age standardised estimates can be time consuming and difficult to explain and interpret, while the employment to working age population ratio is a simpler way to compare different groups.



Source(s): Labour Force, Australia (cat. no. 6202.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

The employment to labour force ratio

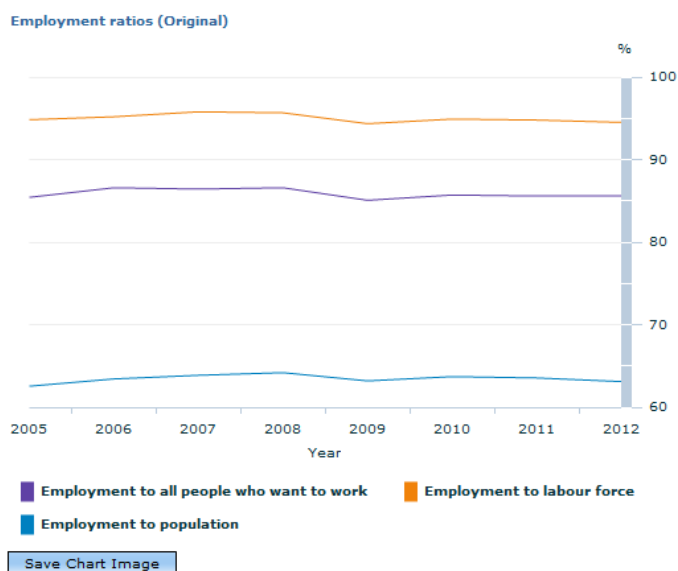
The employment to labour force ratio, also known as the employment rate, is the inverse of the unemployment rate. The employment to labour force ratio shows the number of people that are employed as a percentage of the labour force. This ratio is useful when looking at employment as a proportion of all currently available labour supply, but is a relatively narrow measure when compared with the employment to population ratio.

The above graph shows that the majority of the labour force is employed. The employment to labour force ratio reached a high of 95.8% in 2008 before dropping to 94.4% in 2009 during the most recent economic downturn.

Employment as a proportion of all people who are in work or want to work

Examining employment in relation to all people who are in work or want to work can be useful to understand how well people's aspirations to work are being met in the economy. This measure is similar to the employment to labour force ratio, however the denominator is expanded to include people who are not in the labour force who report that they want to work, i.e. that they have a desire or aspiration for work. Data are sourced from the Persons Not in the Labour Force survey (cat. no. 6220.0), which is currently conducted in September each year.

The employment to all people who are in work or want to work ratio is roughly 10 percentage points lower than the employment to labour force ratio. This is due to more people being included in the denominator while the number of employed (in the numerator) stays the same. The employment to all people who are in work or want to work ratio has stood at over 85% since 2005.



Australian Bureau of Statistics

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Source(s): Persons Not in the Labour Force (cat. no. 6220.0); Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001)

Employment measures are a useful way of understanding the characteristics of, and changes in, the labour market, but users should consider which measure best suits their needs. In addition, these measures alone are not sufficient for completely understanding the performance and nature of the labour market. Additional measures and statistics are required, such as hours worked, unemployment, underemployment, earnings and working arrangements. These, and other, statistics are released on a regular basis from the ABS Labour Force Survey and suite of labour supplementary surveys.

A comparison of the Census and the Labour Force Survey (Feature Article)

A COMPARISON OF THE CENSUS AND THE LABOUR FORCE SURVEY

INTRODUCTION

The ABS's Labour Force Survey (LFS) and the Census of Population and Housing both collect information about labour market activity of people aged 15 years and over. The LFS is a household survey which provides Australia's official estimates of employment and unemployment, which are released on a monthly basis. The Census on the other hand is conducted every five years and aims to measure the number of people living in Australia on Census night and the dwellings in which they live. The Census also collects information about a range of characteristics of people, including, but not limited to, information about their labour force status.

The Census provides a count or snapshot of people living in the country on Census night. Being a Census, it is a good source of information for small population groups and areas and allows for the analysis of industry and occupation data at a more detailed level. But it is conducted on a five yearly basis, therefore not an appropriate source of data for monitoring ongoing labour market conditions. The LFS on the other hand is conducted monthly and is designed specifically to measure changes over time in the Australian labour force. Therefore it provides a more accurate estimate of key labour force statistics of the Australian economy as well as a range of more detailed data.

While both collections measure the same concepts surrounding the labour force in Australia, there are a number of differences between the two that should be considered. This article describes the differences between the collections and explains why estimates from the Census and the LFS are not directly comparable.

DIFFERENCES BETWEEN THE CENSUS AND THE LFS

Scope and coverage

While the scope of the Census is similar to that of the LFS, there are differences which can have an impact on the data. The scope of the LFS is limited to the civilian population of Australia, therefore members of permanent defence forces are excluded from the survey. In contrast, the Census includes everyone living in Australia on Census night, including the defence forces. This has the impact of increasing the number and proportion of employed people in the Census relative to the LFS, given that all members of the permanent defence forces are employed.

The Jervis Bay Territory, the Territory of Christmas Island and the Cocos (Keeling) Islands are currently out of scope for ABS household surveys, including the LFS, but are in scope of the Census.

The Census includes only those people who are in Australia on Census night, while the LFS includes usual residents who are out of the country for less than 6 weeks.

Although the Census aims to capture information about every person in Australia on Census night, it is inevitable that in such a large undertaking some people will not be counted. To account for this, a Post Enumeration Survey is undertaken a few weeks after the Census, to estimate the number and characteristics of people who were not counted on Census night.

By contrast, the LFS is a sample survey and weighted to an independent population benchmark based on the Estimated Resident Population (ERP). This ensures that the LFS estimates add up to an independently estimated distribution of the usually resident civilian

population aged 15 years and over, regardless of any sample lost due to non-response.

The ABS uses overseas arrivals and departures data to estimate the number of people overseas on Census night in calculating the ERP, but no adjustment is made to the Census data based on these estimates. The LFS estimates for August 2011 are currently benchmarked to the ERP based on the 2006 Census. The rebasing of the LFS benchmarks to the 2011 Census-based ERP estimates will be undertaken in early 2014.

Collection methodology

The Census uses a self-enumeration methodology where households are required to complete the Census form themselves and therefore relies entirely on the initial response provided by the respondents. By contrast, the LFS is conducted predominantly by trained ABS interviewers, either face-to-face or over the phone. Post the 2011 Census the ABS commenced the introduction of on-line self-enumeration for the LFS. For more details see the April 2013 issue of Labour Force, Australia (cat. no. 6202.0). Although both enumeration methods can lead to an error if the question is misunderstood, this is less likely to happen with the LFS where the interviewer is able to clarify responses to questions asked. The interviewer is also able to request additional information if answers provided are not sufficiently detailed to ensure accurate classification or coding of industry and occupation of employment.

The Census determines labour force status (i.e. whether a person is employed, unemployed or not in the labour force) from responses to four questions, whereas in the LFS, labour force status is derived from around 30 questions. Many of the additional questions in the LFS relate to the circumstances where a person may be defined as 'employed' even though they were not at work during the survey reference week. The use of the reduced question set in the Census may result in some employed people being incorrectly categorised as either unemployed or not in the labour force, and some unemployed people being categorised as not in the labour force. The additional questions in the LFS therefore results in a more accurate classification and better measure of the employed and unemployed at a point in time.

Sampling error

The estimates derived from the LFS are based on information obtained from a sample of dwellings, therefore the results are subject to sampling error. The sample is designed to ensure that sampling error is reduced to a minimum at the national and state/territory levels. However, it can be higher for labour force regions or for detailed breakdowns. The estimates are therefore accompanied by information on the quality of the estimates including relative standard errors. By contrast, the Census is not subject to sampling error because it aims to collect the information from everyone in Australia on Census night.

Treatment of non-response

Another difference between the two collections is the treatment of non-response. For various reasons, a proportion of households that are occupied on Census night either cannot or do not return their Census forms and are referred to as the non-response population. In the 2011 Census, this population was 3.7%. To account for this, persons in non-responding households are imputed, along with some demographic characteristics. In contrast, the LFS does not include non-responding households because only fully responding households contribute to the estimates, with any non-response being compensated for by the weighting process.

Table 1. Summary of differences between the Census and the LFS

	Census	LFS
Scope and coverage	Includes anybody living in Australia on Census night.	Limited to the civilian population. Includes usual residents who are out of the country for less than 6 weeks. Excludes members of the defence forces.
Frequency	Conducted every five years.	Monthly collection.
Reference period	The week prior to the Census night.	The week prior to the week in which the survey is conducted.
Collection methodology	Self-enumeration.	Interview - personal visit or telephone.
Questions	Labour force status determined from four questions.	Labour force status determined from around 30 questions.
Treatment of non-response	Some items are imputed. Others included in 'not stated' category.	Treated as 'not stated' therefore excluded and adjusted through the weighting process.

DATA COMPARISON

The following section compares Census data on four key labour market variables with original data from the August 2011 LFS. The 2011 variables compared are labour force status, hours worked, industry of employment and occupation of employment.

Labour Force Status

Comparing the labour force status between Census and LFS data show that there are differences in the estimated number of persons across the labour force status categories, as well as for the total number of people aged 15 years and over. While the LFS estimates of employed people, unemployed people and those not in the labour force are significantly higher than the Census count, the data produced similar results using proportions.

The Census and LFS also differ in the way they determine full-time and part-time employment. In the Census, a person is considered to be working full-time if they worked 35 hours or more in all jobs during the week prior to Census night or part-time if they worked less than 35 hours. In addition, they have a category for 'employed away from work'.

The LFS designates full-time workers as persons who (a) usually work 35 hours or more per week in all jobs, or (b) although usually working less than 35 hours a week, actually worked 35 hours or more during the survey reference week. In the LFS, part-time workers are those who usually work less than 35 hours per week, and either did so during the reference week, or were not at work in the reference week. People employed but away from work are categorised as either employed full-time or part-time based on actual hours worked.

Table 2. Labour Force Status

	Number of persons (⁰⁰⁰)	2011 Census Percent (%)	Number of persons (⁰⁰⁰)	LFS, August 2011(a) Percent (%)
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Labour force	10 658.5	65.0	11 917.9	65.0
Employed total	10 058.3	61.4	11 311.0	61.6
Employed, worked full-time	6 367.6	38.9	7 927.6	43.2
Employed, worked part-time	3 063.0	18.7	3 383.4	18.4
Employed, away from work (a)	627.8	3.8	-	-
Unemployed total	600.1	3.7	606.9	3.3
Unemployed, looking for full-time work	357.9	2.2	430.7	2.3
Unemployed, looking for part-time work	242.3	1.5	176.2	1.0
Not in the labour force	5 729.3	35.0	6 430.5	35.0
Total (b)	16 387.8	100.0	18 348.3	100.0

Table source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed (cat. no. 6291.0.55.001).

Table notes:

- In the LFS people employed but away from work are categorised as either employed full-time or part-time based on usual hours worked.
- The number of people with labour force status 'not stated' in the Census (975,929) have been removed to enable better comparison with the LFS.
- Components may not necessarily add up to the totals due to rounding.

Hours worked

The hours worked data in the Census refers to hours worked in the reference week and are therefore compared with the LFS data item 'actual hours worked', rather than 'usual hours worked'.

Comparing the actual hours worked using Census and LFS data indicated that they broadly had similar distributions. But the category 40 hours had 18.8% for the Census and 14.6% for the LFS. Also a higher proportion of employed people in the Census indicated that they worked 35-39 or 40 hours, compared with the LFS. This may partly be due to rounding of hours worked by people in the Census (self-enumeration) to their perception of full-time hours (e.g. 38, or 40 hours), while more precise estimates may be provided when responding to LFS interviewers.

The Hours worked item was not stated for 2.2% (218,484) of employed persons in the Census and their exclusion may impact on the distribution.

Table 3. Hours worked

	Number of persons ('000)	2011 Census Percent (%)	Number of persons ('000)	LFS, August 2011 Percent (%)
0 hours	409.3	4.2	611.8	5.4
1-15	1 087.8	11.1	1 287.2	11.4
16-34	1 975.2	20.1	2 561.3	22.6
35-39	1 808.9	18.4	1 954.2	17.3
40 hours	1 846.5	18.8	1 653.6	14.6
41 and above	2 712.2	27.6	3 242.9	28.7
Total (a)	9 839.8	100.0	11 311.0	100.0

Table source: Source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed (cat. no. 6291.0.55.001)

Table notes:

- The number of people whose hours worked was 'not stated' in the Census (218,484) has been removed from the Census Total of 10,057,484 to aid comparison.
- Components may not necessarily add up to the totals due to rounding.

Industry of employment

Industry of employment in both Census and LFS data produced similar distributions. The industry division 'Retail trade' had the highest percentage of 10.8% and 10.7% for Census and LFS respectively, whilst the division 'Electricity, gas, water and waste services' had the smallest percentage of 1.2% for both Census and LFS.

The industry of employment was not determined for 2.3% (233,886) of employed people in the Census as it was either 'not stated' or 'inadequately described'.

Table 4. Industry of employment

Industry (a)	Number of persons ('000)	2011 Census Percent (%)	Number of persons ('000)	LFS, August 2011 Percent (%)
Agriculture, forestry and fishing	249.8	2.5	312.2	2.8
Mining	176.6	1.8	226.2	2.0
Manufacturing	902.8	9.2	942.6	8.3
Electricity, gas, water and waste services	115.6	1.2	141.3	1.2
Construction	828.9	8.4	1 028.5	9.1
Wholesale trade	403.8	4.1	405.7	3.6
Retail trade	1 057.3	10.8	1 214.8	10.7
Accommodation and food services	650.4	6.6	776.4	6.9
Transport, postal and warehousing	479.2	4.9	582.0	5.1
Information media and telecommunications	178.1	1.8	203.7	1.8
Financial and insurance services	377.4	3.8	429.4	3.8
Rental, hiring and real estate services	158.9	1.6	193.3	1.7
Professional, scientific and technical services	730.1	7.4	874.9	7.7
Administrative and support services	323.8	3.3	406.1	3.6
Public administration and safety	689.9	7.0	732.9	6.5
Education and training	804.4	8.2	865.3	7.7
Health care and social assistance	1 167.6	11.9	1 320.1	11.7
Arts and recreation services	151.6	1.5	207.6	1.8
Other services	378.2	3.8	448.1	4.0
Total (b)	9 824.4	100.0	11 311.0	100.0

Table source: Source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003).

Table notes:

- Classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006 (cat no. 1292.0).
- The number of people whose industry of employment was either 'not stated' (109,131) or 'inadequately described' (124,755) in the Census have been removed from the Census total of 10,058,325 to aid comparison.

c. Some components may not sum up to the totals due to rounding.

Occupation of employment

Similar to industry, the distribution across occupation of employment was similar for both the Census and the LFS. The occupation category 'Professionals' had the highest percentage of 21.7% and 21.6% respectively for Census and the LFS. The occupation category 'Machinery operators and drivers' had the smallest percentage of 6.7% and 6.8% respectively.

The occupation of employment could not be determined for 1.9% (189,013) in the Census as it was either 'not stated' or 'inadequately described'.

Table 5. Occupation of employment

Occupation (a)	Census 2011		LFS, August 2011	
	'000	%	'000	%
Managers	1 294.0	13.1	1 469.4	13.0
Professionals	2 145.4	21.7	2 439.1	21.6
Technicians and trades workers	1 425.1	14.4	1 608.1	14.2
Community and personal service workers	971.9	9.8	1 100.1	9.7
Clerical and administrative workers	1 483.6	15.0	1 704.1	15.1
Sales workers	942.1	9.5	1 057.4	9.3
Machinery operators and drivers	659.6	6.7	773.7	6.8
Labourers	947.6	9.6	1 159.2	10.2
Total (b)	9 869.3	100.0	11 311.0	100.0

Table source: ABS 2011 Census of Population and Housing 2011, Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003).

Table notes:

a. Classified according to ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 (cat no. 1220.0).

b. The number of people whose occupation was either 'not stated' (79,861) or 'inadequately described' (109,152) in the Census has been removed from the Census total of 10,058,325 to aid comparison.

c. Some components may not sum up to the totals due to rounding.

Conclusion

Comparisons of the Census and LFS outputs are difficult because their purpose, scope, frequency and mode of collection vary. Understanding these differences helps explain why observed estimates from the LFS are different from the Census. However, this article illustrates that, while the level estimates are different the distributions of data from both sources are generally similar.

For the most authoritative and recent estimates of labour market information including employment and unemployment, labour force statistics published monthly by the ABS in Labour Force, Australia (cat no. 6202.0) are the most appropriate. The Census is valuable for detailed data and analysis on the economically active population and for regional and small population analysis.

Part-Time and Casual Employment (Feature Article)

PART-TIME and CASUAL EMPLOYMENT

PART-TIME AND CASUAL EMPLOYMENT ARE DIFFERENT

The ABS Labour Statistics program describes the working arrangements of employed people, including full-time/part-time status, and entitlement to forms of leave, which is used as a proxy for casual status. Whether a person is employed on a full-time or part-time basis differs from, and is independent of, entitlements to leave (or casual employment). Full-time/part-time status is based on the number of hours usually or actually worked, and casual employment is characterised by the nature of the employment contract. An employee can be full-time and casual, or part-time and casual.

PART-TIME and FULL-TIME EMPLOYMENT

People are defined as employed part-time in the ABS Labour Force Survey (LFS) if they usually work less than 35 hours per week, and actually did so in the reference week for the survey, or usually work less than 35 hours per week and were away from work. Those people usually or actually working 35 hours or more per week are defined as employed full-time. Part-time employment is defined solely on the basis of hours worked, and does not depend on employee or employer perception of whether the person is full-time or part-time. Data by full-time/part-time status are available monthly in the Labour Force Survey.

CASUAL EMPLOYMENT

Casual employment is not currently collected in the LFS. The ABS has three data items related to casual employment, currently collected annually in supplementary labour surveys:

- Employees without leave entitlements;
- Employees who receive a casual loading; and
- Employees who consider their job to be casual (self-perception).

Leave Entitlements

The ABS uses 'employees without paid leave entitlements' as the primary measure of casual employment. This is an objective measure that can be collected consistently. An employee with paid leave entitlements has access to either paid holiday leave or paid sick leave, or both. An employee is considered to be without leave entitlements if they identify as not having access to both paid sick leave and holiday leave, or did not know their entitlements.

Casual Loading

In lieu of paid leave, some casual employees are entitled to a 'casual loading' - a higher hourly rate of pay to compensate for not being entitled to paid holiday and/or sick leave¹. Survey respondents are asked whether they receive a casual loading. However, around one-third of respondents report not receiving a casual loading, despite being without leave entitlements. This may be the case, or may reflect a lack of awareness that a loading is included in their pay. In some households, responses are provided by one member of the household on behalf of other members, and the respondent may be unaware of whether a casual loading is paid to the other household members.

Self-Perception

The third data item used to consider casual employment is whether the survey participant considers their job to be casual. This question is asked in order to provide a different perspective of casual employment. Casual work is often viewed as less secure than other types of employment, as there may not be a guarantee of ongoing work, and hours of work may vary based on availability of hours offered by the employer. These are common characteristics of casual employment², but they apply to casual workers to varying degrees, and may also apply to non-casual workers. An employee's perception of whether or not their job is casual may be based on commonly recognised features of casual employment such as these, and may or may not reflect the actual conditions of their employment. For example, an employee may perceive that they are guaranteed a minimum workload per week, but this may not align with their employer's understanding.

Despite variability in the experience of casual employment, 96% of respondents' own perception of their casual status aligns with whether they have access to leave entitlements. This indicates that access to leave entitlements as a measure of casual status provides a definition that is broadly aligned with a general understanding of casual employment.

FURTHER INFORMATION

For further discussion on the impact of different definitions of casual employment, see the feature article 'Measures of Casual Employment' in Australian Labour Market Statistics, October 2008 (cat. no. 6105.0). For data on casual employment, see , Forms of Employment (cat. no. 6359.0), Employees Earnings, Benefits and Trade Union Membership (cat. no. 6310.0), or Working Time Arrangements (cat. no. 6342.0). Data on casual status based on leave entitlements (as described above) will also be available quarterly in the Labour Force Survey from mid-2015.

ENDNOTES

¹Fair Work Ombudsman, 2012, 'Casual Employees', fairwork.gov.au

²For details, see Working Time Arrangements (cat. no. 6342.0)

Migrant Data in ABS Labour Statistics (Feature Article)

MIGRANT DATA IN ABS LABOUR STATISTICS

An international migrant (referred to as migrant) is defined as **"any person who changes his or her country of usual residence"** (United Nations 1998). The country of usual residence is the country in which a person lives, that is to say, the country in which he or she has a place to live where he or she normally spends the daily period of rest. A long-term migrant is a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence. In Australia, for the purposes of estimating net overseas migration, and thereby the official population counts, a person is regarded as a usual resident if they have been (or expected to be) residing in Australia for a period of 12 months or more over a 16 month period (the '12/16 month' rule).

A person who enters Australia on a temporary basis to work, study or holiday may be referred to as a temporary migrant. The main groups contributing to temporary migration are New Zealand citizens, international students, temporary resident visa holders (including working holiday makers and 457 visa holders), and visitors (including tourists and people on short business trips or visiting family). Not all of these people are captured in the Labour Force estimates, because employment and unemployment statistics are only collected in relation to the Australian usual resident population. This fact sheet outlines what information is available about migrants from ABS labour statistics.

THE LABOUR FORCE SURVEY

The scope of the ABS monthly Labour Force Survey (LFS) is the usually resident civilian population aged 15 years and over.

The LFS uses population benchmarks to weight the survey sample to the population. People are included in the usually resident Australian population if they spend 12 months or more in Australia out of a 16 month period (the '12/16 month rule'). Preliminary population estimates are modelled on a person's stated intention on arrival, and final estimates are updated based on actual behaviour, after the 16 month period has elapsed. This criterion is based on an individual's duration of stay within Australia and is independent of visa class. Therefore those who are long-term migrants in Australia and some temporary migrants are in scope of the LFS.

No information about visa class is collected in the LFS.

Data by Country of Birth and Year of Arrival

The LFS and all labour household supplementary surveys collect people's Country of Birth and Year of Arrival in respect of usual residents. These data items can be used to define migrants. Country of Birth is classified according to the Standard Australian Classification of Countries (cat. no. 1269.0). Standard output is published on regions, but in most cases more detailed data are available on request. Year of Arrival is collected by single year, but is usually published in five-year groupings. Age on arrival can also be derived from Year of Arrival and Current Age, to provide a more complete picture, such as to distinguish adult migrants from those who migrated as children but have since reached adulthood.

The LFS does not distinguish:

- long-term migrants from temporary migrants; nor
- people specifically moving to Australia as skilled workers compared to those migrating for family, humanitarian or study purposes.

CHARACTERISTICS OF RECENT MIGRANTS SURVEY

Characteristics of Recent Migrants (cat. no. 6250.0) is a labour supplementary survey, which is currently collected every three years. This survey contains comprehensive information on the labour force experience of recent migrants (those arriving in Australia in the last 10 years, who are now usual residents of Australia) and temporary residents. Data from this survey are available by Current Visa Category and Visa Category on Arrival, in addition to the standard Country of Birth and Year of Arrival data items. Other variables of interest are also available such as English proficiency (on arrival and current) and highest non-school qualification (on arrival and current)

This survey only outputs visa information for broad visa categories (7-10 categories, depending on data quality). These categories each incorporate several visa subclasses, and may therefore include diverse migrant groups within one visa category. For example, people on working holidays, extended business trips and temporary skilled workers (including 457 visa holders) are all included in the category 'Temporary – Other'.

457 Visas

The term '457 visa' is commonly used to refer to the Temporary Work (Skilled) Visa (subclass 457), previously known as the Temporary Business (Long-Stay) Visa. Labour force data specific to 457 visa holders are not available from the ABS monthly LFS, or from other ABS sources. The way that 457 visas are captured and reflected in the LFS reflects the scope of the survey and the population benchmarks used to weight survey responses, as outlined above.

457 visa holders will be surveyed in the LFS if their dwelling is selected and they consider themselves to be a usual resident of that household. Some 457 visa holders will be included in the Australian population (and therefore population benchmarks) while others may not, depending on their actual or intended length of stay in Australia. For these reasons it is not possible to determine what contribution temporary migrants make to the LFS, nor to quantify what proportion of 457 visa holders are captured in the LFS.

LABOUR BUSINESS SURVEYS

Within the ABS business labour surveys, which are completed by employers, no information is collected relating to the visa class or other personal characteristics of employees. Therefore information on 457 visa holders are not distinguishable from Australian employees or migrants working in Australia on other types of visas.

OTHER DATA SOURCES

Migrants

More ABS information on Migrants is available from:

- The Census of Population and Housing. For information on what data are available from the Census, see Census Dictionary 2011 (cat. no. 2901.0);
- QuickStats Country of Birth - uses the latest Census data;
- The General Social Survey (cat. no. 4159.0);
- Topics @ a Glance - Migrant and Ethnicity.

Research from the Department of Immigration and Border Protection, including labour market experience of migrants, is available from their website: <http://www.immi.gov.au/media/publications.htm>

457 Visas

457 Visas are specifically included in:

- Migration, Australia (cat. no. 3412.0) - includes information on the number of 457 visa holders being included in the population according to the above '12/16 month' rule.

The Department of Immigration and Border Protection publishes statistics on 457 visa holders, including employment characteristics such as industry, occupation and average earnings: <http://www.immi.gov.au/media/statistics/statistical-info/temp-entrants/subclass-457.htm>.

Fly-in Fly-out (FIFO) Workers (Feature Article)

FLY-IN FLY-OUT (FIFO) WORKERS

Fly-in Fly-out (FIFO) work is defined as "circumstances of work where the place of work is sufficiently isolated from the worker's place of residence to make daily commute impractical"¹. The term FIFO covers other long distance commuting employment arrangement, such as drive-in drive-out. The FIFO phenomenon has become more apparent, particularly in remote regions where employment in mining and related industries have increased. FIFO workers may be utilised to deliver a range of services in remote communities, such as health services and supporting infrastructure projects.

USUAL RESIDENCE

How are FIFO workers reflected in the Australian population?

The ABS definition of the Australian population is on a 'usual residence' basis. Population estimates are based on Census data and are updated between five-yearly Censuses based on births, deaths, internal migration and overseas migration data². The definition of usual residence in the Census, and associated population statistics, is the location where a person spends more than six months out of the year. On this basis, some FIFO workers will be included in the usual resident population of their FIFO community, while others will be included in the population of their home city or town.

In practice, when FIFO workers respond to the Census, they provide their interpretation of which location they believe to be their usual residence at the time. In some cases, a person may 'fly-in' to multiple locations, or stay in a variety of accommodation throughout the year. For such a person their home city or town may be the only fixed address they can provide, despite being resident there for less than six months of the year. This should be taken into account when using the usual resident population from ABS data to draw conclusions about

FIFO and other topics.

LABOUR FORCE SURVEY (LFS)

Where are FIFO workers captured in labour surveys?

The LFS sample frame consists of dwellings, and responses are collected about each usual resident of the selected dwellings. The LFS also includes special dwellings, such as hotels, hostels and staff accommodation. One responsible adult in the selected dwelling usually provides information about all usual resident members of the household. If the city/town home of a FIFO worker is sampled, they will be included or excluded from the survey based on the perception of the survey respondent as to whether the person is a usual resident there. For example, the spouse of a FIFO worker may include that person as a usual member of the household even if they spend more than six months of the year at a different residence.

Due to the usual residence approach, any state/territory or regional level data published from labour household surveys will relate to where people are usually resident, and may not align with where they work. The LFS provides a measure of the employment of people who live in an area and not the levels of employment of the area.

Are FIFO workers identified in labour household surveys?

The LFS and supplementary labour surveys do not collect any information which could be used to directly determine whether a person is a FIFO worker. Supplementary surveys such as Locations of Work (cat. no. 6275.0) have collected some information about those who work in a different state/territory or region from where they live, which may serve as a proxy measure for some FIFO work. At the state level this would not identify people who fly-in/fly-out within the same state, such as living in Perth and working in the Pilbra (WA), however the difference in region would highlight such situations. Also, people may work across a state border, but in reality live within a short daily commute, such as between Albury (NSW) and Wodonga (VIC), or Queanbeyan (NSW) and Canberra (ACT).

Industry and occupation of work are also collected in labour surveys, but use of this information (for example considering the usual residence of miners residing in non-mining regions) will only result in partial coverage of FIFO workers, as a number of industries and occupations have very small proportions of employees who work on a FIFO basis, yet contribute substantially to the overall number of FIFO workers.

OTHER DATA SOURCES

Census of Population and Housing

The Census collects information on location of work, place of enumeration (where the person was counted on Census night) and usual residence, as well as various other characteristics such as age, sex, industry of work and occupation. The Census also provides a Working Population Profile for regions.

Distance travelled to work can be imputed by comparing location of work to location of usual residence. This is calculated based on the centre point of the region of work and region of residence, rather than on individual locations. Distance to work can be used to make inferences about FIFO and other service populations, but is not a direct or complete measure. For example, long distances might be calculated between the centre points of two large adjacent regions, whereas the individual may commute an easy drive across the border of those regions.

The number and characteristics of people counted in a region on Census night can be compared to the number and characteristics of usual residents in that region. It has been inferred from these data that in some regions many of the people who are staying in the region on Census Night could be FIFO workers. The ABS has previously released the following articles analysing this type of data:

- Western Australia - Outback: A Population Overview, in Reflecting a Nation: Stories from the 2011 Census, 2012-13 (cat. no. 2071.0);
- Perspectives on Regional Australia: Comparing Census Night and Usual Resident Populations in Local Government Areas, 2011 (cat. no. 1380.0.55.009).

ENDNOTES

¹ Watts, J. (2004). Best of Both Worlds? Seeking a Sustainable Regional Employment Solution to Fly In-Fly Out Operations in the Pilbara. Karratha.

² For details on the calculation of Australia's Estimated Resident Population, see Population Estimates: Concepts, Sources and Methods (cat. no. 3228.0.55.001).

History of Changes

This document was added or updated on 13/02/2014.

13/02/2014

Release of three feature articles: Part-time and Casual Employment; Fly-in Fly-out (FIFO) Workers and Migrant Data in ABS Labour Statistics.

Explanatory Notes

Data Cubes (I-Note) - Data Cubes

Tables 1 - 3 are updated on an annual basis. All three were updated in the July 2013 issue of Australian Labour Market Statistics (cat. no.

6105.0).

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